Appl. No. 10/705,562 Docket No. PAT025US

**PATENT** 

## **Amendments to the Specification**

Please replace paragraph [0081] with the following paragraph:

[0081] The borehole azimuth at the lower sensor set 120 may be described as follows:

BoreholeAzimuth = ReferenceAzimuth + DeltaAzimuth

Equation 18

where the reference azimuth is the azimuth value at the upper sensor set 110 and where:

$$DeltaAzimuth = \frac{Beta}{1 - Sin((Inc1 + Inc2)/2)}$$
 Equation 19

and:

$$Beta = \arctan(\frac{(Gx2*Gy1 - Gy2*Gx1)*\sqrt{Gx1*Gy1*Gz1}}{Gz2*(Gx1^2 + Gy1^2) + Gz1*(Gx2*Gx1 + Gy2*Gy1)})$$
Equation 20

$$Beta = \arctan\left(\frac{(Gx2*Gy1 - Gy2*Gx1)*\sqrt{Gx1^2 + Gy1^2 + Gz1^2}}{Gz2*(Gx1^2 + Gy1^2) + Gz1*(Gx2*Gx1 + Gy2*Gy1)}\right)$$
 Equation 20